

USER MANUAL

Wide Temperature Touch Panel PC

IP10ID7T-A1-WT-5RT

IP15ID7T-A3-WT-5RT

IP17ID7T-A1-WT-5RT

American Industrial Systems, Inc.

<http://www.aispro.com>

Quick solution for:

- Operator/Access Control & Monitoring Systems
- Human Machine Interfaces (HMI)
- Visualization Applications in Harsh Industrial Environments

User Guide

Wide Temperature Touch Panel PC

IP10ID7T-A1-WT-5RT

IP15ID7T-A3-WT-5RT

IP17ID7T-A1-WT-5RT



Touch Technology Analog Resistive 5-wire
Fanless All-in-one Panel PC
Ultra-low Power with Intel® Atom™ dual core processor N2800 1.86 GHz
Extended Temperature range of -20 to 60°C (-4 to 140°F)

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FCC rules:

The test results show that this device meets the FCC rules. Those limits are set to protect residential areas from the devices with harmful emission. This device will produce, use and radiate radio frequency energy. In addition, failure to follow the user's manual to install or use this device might produce harmful interference with radio communication. Notwithstanding the foregoing, it does not guarantee that this type of harmful interference does not occur in some special installations. The interference caused by this device to the reception of radio or television signals may be verified by turning it on and off. Any changes or modifications to this TFT LCD would void the user's authority to operate this device.

Important Recycle Instruction:

 Lamp(s) inside this product contains mercury. This product may contain other electronic waste that can be hazardous if not disposed of properly. Recycle or dispose in accordance with local, state, or federal Laws. For more information, contact the Electronic Industries Alliance at WWW.EIAE.ORG. For lamp specific disposal information check WWW.LAMPRECYCLE.ORG

Usage Notice

Warning!

To prevent the risk of fire or shock hazards, do not expose this product to rain or moisture.

Do not open or disassemble the product as this may cause electrical shock.

Precautions

Follow all warnings, precautions and maintenance as recommended in this user's manual to maximize the life of your unit.

Do:

- Turn off the product before cleaning.
- Touch screen surface may be cleaned using a soft clean cloth moistened with mild window glass commercial cleaners or 50/50 mixture of water and isopropyl alcohol.
- Use a soft cloth moistened with mild detergent to clean the display housing.
- Disconnect the power plug from AC outlet if the product is not going to be used for an extended period of time.

Don't:

- Do not touch the LCD Display screen surface with sharp or hard objects.
- Do not use abrasive cleaners, waxes or solvents for your cleaning.
- Do not operate the product under the following conditions:
 - Extremely hot, cold or humid environment.
 - Areas susceptible to excessive dust and dirt.
 - Near any appliance generating a strong magnetic field.
 - In direct sunlight.

Introduction

Applications:

Quick solution for:

- Operator/Access Control & Monitoring Systems
- Human Machine Interfaces (HMI)
- Visualization Applications in Harsh Industrial Environments

About Wide Temperature Touch Panel PCs

IP(10,15,17)ID7T-A3-WT-5RT

IP = Industrial Panel

10,15,17 = Diagonal viewing area in inches

ID7T = Intel Atom dual core

WT= Wide Temperature

5RT = 5 wire Resistive Touch

Features include:

- Analog 5 wire Resistive multi touch screen
- NEMA 1/4/12, IP 54, IP65 Aluminum Front Bezel
- Active matrix TFT LCD technology
- Resolution
- 15" viewable display area
- Viewing angle H: 140°, V: 120°
- Contrast Ratio 500:1
- 75 x 75 mm or 100 x 100 mm VESA Mount
- Dimensions (W x H x D) 400 x 320 x 79.8 mm
- OS: Windows Embedded Standard 7 or Windows XP Embedded

Integrated possibilities:

Wide -20 to 60°C (-4 to 140°F) operating temperature range

Steel construction and NEMA4/IP65 sealed front panel for demanding indoor and outdoor industrial environments

Flexible, reliable, and ruggedized for open platform HMI/SCADA

Supports Panel, Wall, and VESA arm mounting

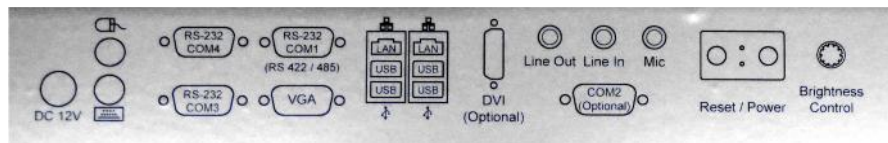
Technical support for drivers, hardware, troubleshooting procedures and general system issues

Customer service and sales support for product selection, order management, and warranty status



Back Panel I/O Port

- 1 x Power Jack
- 1 x Keyboard, 1 x Mouse PS2 types
- 2 x RJ-45 (LAN)
- 2 x RS-232 only (Com3 and 4) Note# COM2 is optional
- 1 x RS-232/422/485 (Com 1 configurable)
- 1 x VGA
- 4 x USB 2.0
- 1 x DVI (optional)
- 1ea. Line Out, Line In and Microphone Jack



Reset button
Power on LED
Hard drive activity LED
Brightness control

Side View



Top Edge Speaker ports



Ethernet interface

The Motherboard is equipped with Broadcom BCM57780 chipset which is fully compliant with the PCI 10/100/1000 Mbps Ethernet protocol compatible. It is supported by major network operating systems. The Ethernet ports provide two standard RJ-45 jacks.

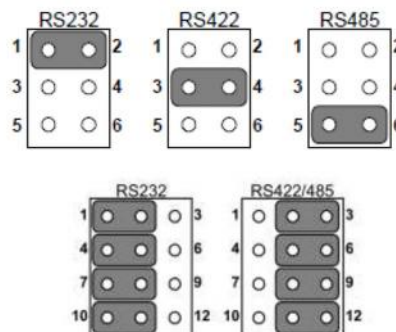
Why 2 Ethernet ports

- LAN data collection / storage
- WAN separate and secure
- PLC / machine control interface
- Camera for security or machine vision

Serial COM port

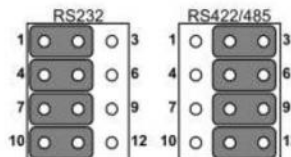
RS-232 only (Com3 and 4) Note# COM2 is optional

RS-232/422/485 (Com 1 configurable) factory jumper setting is RS232.



RS232 / RS422 / RS485

JP2:	Pin No.	Functions
	1 Short 2	RS232
	3 Short 4	RS422
	5 Short 6	RS485



JP3:	RS232	RS422/485
	1-2	2-3
	4-5	5-6
	7-8	8-9
	10-11	11-12

Note# The single Jumper is secured with adhesive and the multiple jumpers are secured by the tight fit.

USB ports

4 x USB 2.0 ports Type-A support hot plug-in connection.

VGA port for 2nd industrial monitor

DVI (optional)

Extended monitor support:

- Add camera to watch for deliveries from you work space
- Add machine vision inspection to the machine process
- Use of the Panel PC without blocking the view of critical Gages
- Add remote viewing outside the control room
- Locate the second display closer to the action
- Room Information Display

Mother Board

Product Overview

Processor

The panel PC is integrated with Intel® NM10 express chipset and Atom N2800 - 1.83 GHz Processor. The Intel Atom Processor with 32nm low power design enables down to 50% less average power consumption and the chipset delivers up to 4x improvement in graphics performance and enables up to 50% higher data transfer bus speed rate. Intel Graphic Accelerator 3600 Integrated Graphics Engine, Broadcom BCM57780 GbE controller

Thus, the ID70 SBC is designed to satisfy most of the applications in the industrial computer market, such as Gaming, POS, KIOSK, Industrial Automation, and Programmable Control System. It is a compact design to meet the demanding performance requirements of today's business and industrial applications.

BIOS

AMI BIOS (detailed instructions exist on the CD shipped with the panel)

Just after power on, pressing the Del key will open the BIOS configuration application.



Main Memory

2GB DDR3 800/1066 MHz, up to 4GB

Chipset

Intel® NM10 express chipset

Storage Device

160GB Hard Disk Drive

Dimensions

~400 x 320 x 79.8 mm (also see: Product Mechanical Drawings)

Environmental Requirements

Temperature - Operating: 0°C to 45°C (32°F to 113°F)

Temperature - Storage: -20°C to 60°C (-4°F to 140°F)

Humidity (Non-condensing) - 30 to 90% RH @ 40° C

Vibration Protection - 5 to 500 Hz, 1 Grms random vibration

General

Input Power 12V DC Terminal Block (Phoenix Type)

MTBF

50,000 Hours Demonstrated

Approvals

Designed for CE/FCC (DOC)

Display type

10.4" diagonal, Active matrix TFT LCD

15" diagonal, Active matrix TFT LCD

17" diagonal, Active matrix TFT LCD

Aspect Ratio

10.4" & 15" – 4:3 (Widescreen)

17" – 5:4

Active/Area

10.4" – 211.2 (H) x 158.4 (V) mm

15" – 304.128 (H) x 228.096 (V) mm

17" – 337.92 (H) x 270.34 (V) mm

Native (Optimal) Resolution

10.4" - 800 x 600 SVGA

15" - 1024 x 768 XGA

17" - 1280 x 1024 SXGA

Number of Colors

10.4" - 16.2M (8bits/color)

15" - 16.2M (6 bits + FRC)

17" - 16.7M (RGB 6-bits+Hi-FRC)

Brightness (Typical)

10.4" & 15" LCD Panel: 400 nits

PCT Touch: 320 nits

17" LCD Panel: 350 nits

PCT Touch: 280 nits

Contrast Ratio

10.4" & 15" – 700:1

17" – 1000:1

Viewing Angle

10.4" & 15" – Horizontal: 160° Total

Vertical: 140° Total

17" – Horizontal: 170° Total

Vertical: 160° Total

Features and Benefits

Flexible, reliable, and ruggedized for open platform HMI/SCADA

Windows-based, integrated CPU, RAM, data storage, USB, RS232, RS422/485 and Ethernet ports

All steel construction designed for harsh and industrial environments

Supports Panel, Wall, and VESA arm mounting

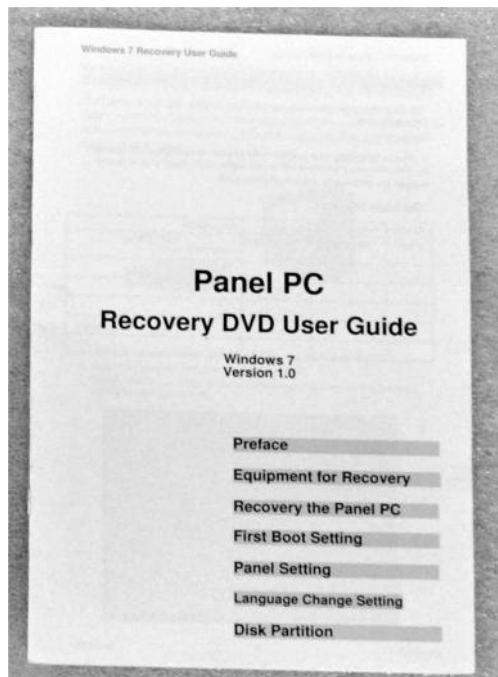
Technical support for drivers, hardware, including troubleshooting procedures and system issues

Customer service and sales support for product selection, order management, and warranty status

Package Content

Driver CD for touch screen and other features

Recovery CD for restoring back to factory condition



Paper back recovery manual



12 VDC Power supply

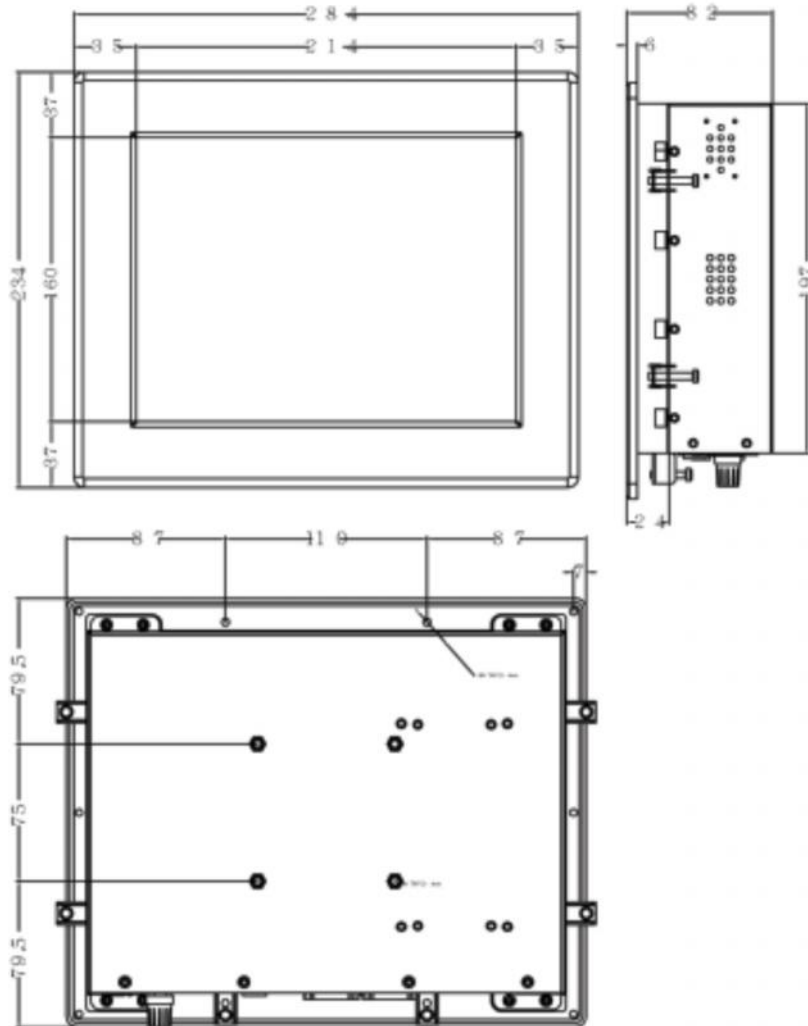
Minimum power requirement is 24 watts

Standard AC Power cord

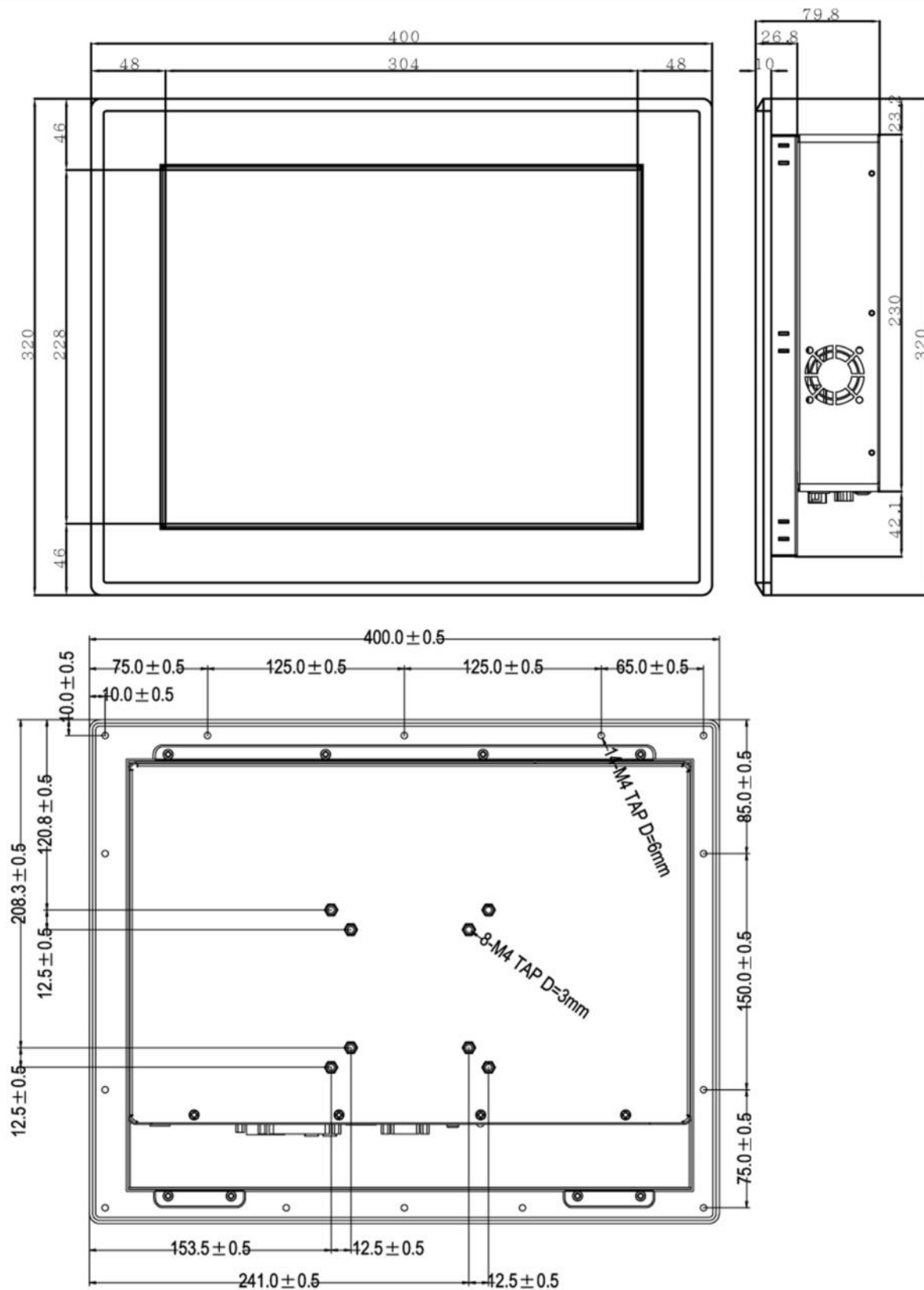
American 3 Prong

Product Dimensions:

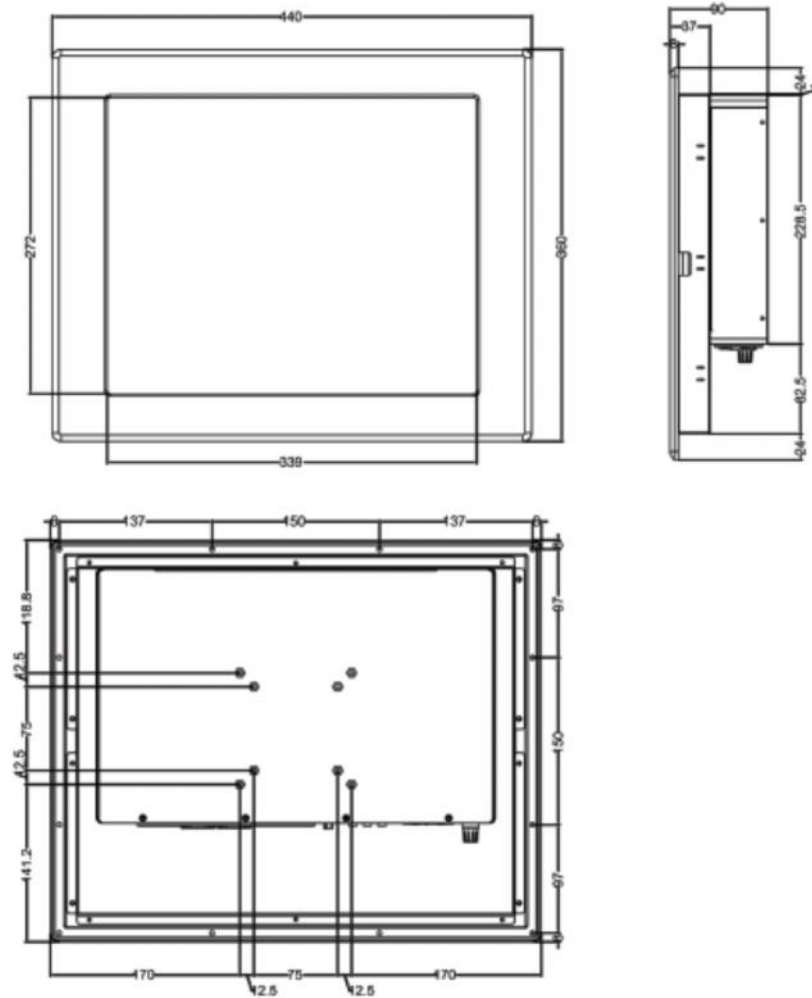
10.4”:



15”:



17":



Cleaning the Monitor

1. Make sure the monitor is turned off.
2. Never spray or pour any liquid directly on the screen or case.
3. Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
4. The display area is highly prone to scratching. Do not use Ketone type material (ex. Acetone), Ethyl Alcohol, Toluene, Ethyl Acid or Methyl Chloride to clear the panel. It may permanently damage the panel and void the warranty.
5. If it is still not clean enough, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen.
6. Don't use water or oil directly on the monitor. If droplets are allowed to drop on the monitor permanent staining or discoloration may occur.

Disclaimer and Troubleshooting

Disclaimer

We do not recommend using any ammonia or alcohol-based cleaners on the monitor screen or case. Some chemical cleaners have been reported to damage the screen and/or case of the monitor. Seller will not be liable for damage resulting from the use of any ammonia or alcohol-based cleaner.

Troubleshooting

If your monitor fails to operate correctly, consult the following chart for possible solutions before calling for repairs:

Condition	Check Point
The picture does not appear	Check if the signal cable is firmly seated in the socket. Check if the Power is ON at the computer Check if the brightness control is at the appropriate position, not at the minimum.
The screen is not synchronized	Check if the signal cable is firmly seated in the socket. Check if the output level matches the input level of your computer. Make sure the signal timings of the computer system are within the specification of the monitor. If your computer was working with a CRT monitor, you should check the current signal timing and turn off your computer before you connect the VGA Cable to this monitor.
The position of the screen is not in the center	Adjust the H-position, and V-position, or Perform the Auto adjustment.
The screen is too bright (too dark).	Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum).
The screen is shaking or waving	Perform the Auto adjustment.. Moving all objects which emit a magnetic field such as motor or transformer, away from the monitor. Check if the specific voltage is applied. Check if the signal timing of the computer system is within the specification of monitor.

For more information, please go to the website <http://www.aispro.com> and contact technical support to help resolve your issue. You can also e-mail support at support@aispro.com. We will be happy to help.

RMA (Return Material Authorization) Service

Before returning any goods, please:

1. Contact American Industrial Systems, inc. Technical Support and request for an RMA number (Return Material Authorization).
2. Describe the behavior or reason of unit failure in order to return. Any returns for credit are subject to a restocking fee.
3. Upon confirmation of a hardware failure or valid cause for return, AIS will provide a Return Merchandise Authorization (RMA).
4. Make sure to receive an RMA number from AIS before returning any merchandise. Clearly write or mark this number on the outside of the package you are returning. Any returns without an authorization will be refused and returned to you by the shipper.
5. When returning goods, include the name and telephone number of a person whom we can contact for further explanations if necessary. Where applicable, always include all duty papers and invoice(s) associated with the item(s) in question:
6. Ensure that the unit is properly packed in the original box. A product packaging manual will be included with the replacement Panel or can be emailed to you in advance. Please refer to it for the necessary instructions on how to appropriately package the panel computer being returned. Failure to do so may result in the panel shifting during transit -which may result in physical damage. Physical damage from improper packaging will void your system warranty.
7. Ship the panel back to the address provided on the RMA documentation, via an insured, pre-paid carrier.
8. Return unit must be received to address provided within 30 days, or invoice for full amount of Panel PC will be issued.